

Remarks

Claim 18 Is Allowable In View Of A Combination Of The Breckenridge And Riedl Patents

Claim 18 has been rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of U.S. Patent No. 4,401,407 of Breckenridge and U.S. Patent No. 3,204,789 of Riedl.

The Breckenridge patent discloses a grasping apparatus for a collection vehicle which includes a pair of arm members that are movable with respect to each other by actuating a hydraulic cylinder in order to grasp a container. The grasping apparatus is mounted on a telescoping arm that is attached to the side of the collection vehicle. The grasping apparatus is also adapted to raise and tilt the container so as to deposit its contents in a trash bin on the vehicle.

The Riedl patent discloses a collection vehicle having a trash collection compartment 2 mounted on its chassis. A cover extension 3 is provided at the rear end of the collection compartment and is hinged at its top so as to pivot upwardly about a horizontal pivot axis. The cover extension includes an inwardly tapering conveyor wheel 6 that is mounted on four guide roller pairs 5 and adapted to be driven in a rotary direction. The conveyor wheel has a plurality of spaced ribs 9 on its inner surface, and it rotates about a hollow cone 10 which is attached to the cover extension. The cone has a filling opening 11 which is accessible from the outside of the vehicle, which opening communicates with a hollow annular cavity between the cone and the conveyor wheel. A helical-shaped scraping and pressing surface projects into this annular cavity and extends around the cone from its apex at point S to point E (located beyond the filling opening). In operation, refuse is placed into the filling opening of the conveyor wheel, and the rotation of the wheel carries the refuse into the trash collection compartment. An exterior door 18 is also

mounted on the side of the trash storage compartment to permit the loading of bulky items too large to pass through the conveyor wheel. A packer blade 17 is mounted in the front portion of the trash collection compartment and is adapted to be pushed rearwardly when the cover extension is raised to expel the trash from the collection compartment.

The Office Action states that it would have been obvious at the time the invention was made to provide the vehicle taught by Breckenridge with a rear collection compartment as taught by Riedl et al. However, both the the Breckenridge patent and the Riedl patent disclose a collection vehicle which has a single collection bin or compartment. Furthermore, the Riedl patent does not teach a rear collection compartment, but rather a "cover extension" which serves to enclose the single collection compartment of the Riedl vehicle and as a conveyor for introducing refuse material into the collection compartment. Applicants believe that a person having ordinary skill in the art at the time their invention was made would combine the teachings of these two references, if properly motivated to do so, to produce a modified Breckinridge vehicle having: (a) a single collection compartment including the Riedl packer blade mounted at the front of the collection compartment and adapted to push refuse material towards the back of the vehicle out of the collection compartment, and (b) the Riedl "cover extension" mounted on the rear end of the collection compartment. However, Applicants' claim 18 requires "a collection bin mounted on the frame" of the vehicle, "a collection compartment that is pivotally mounted on the rear of the vehicle" and a "storage compartment that is mounted on the frame between the collection bin and the collection compartment". In other words, Applicants' claim 18 requires two separate collection receptacles with a storage compartment therebetween. Furthermore, Applicants' claim 18 requires a packer blade that is mounted within the collection compartment or receptacle that is

pivotaly mounted on the rear of the vehicle, and means for moving this packer blade within the collection compartment so as to move refuse from the collection compartment into the storage compartment. In order to obtain Applicants' invention of claim 18, the skilled artisan who combined the teachings of the Breckinridge and Riedl patents would have to make four additional modifications: (1) he would have to change the Riedl "cover extension" into a collection compartment; (2) he would have to add a storage compartment between the cover extension/collection compartment and the Breckinridge collection bin; (3) he would have to take the Reidl packer blade out of the collection bin and mount it in the cover extension/collection compartment; and (4) he would have to reverse the direction of movement of the packer blade, which in the Riedl patent is adapted to push refuse towards the rear of the vehicle, to allow it to push refuse from the rear-mounted collection compartment into the storage compartment. There is nothing in either the Breckinridge or the Riedl patents which suggests any of these further changes or which suggests any motivation for making them.

Only by using the claimed invention as an instruction manual or template to piece together the teachings of the prior art can the invention of claim 18 be considered obvious in view of a combination of the Breckinridge and Riedl patents, and such "hindsight reconstruction" of the invention is not permitted. *See In re John R. Eritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992).

Applicants suggest therefore that their claim 18 is not taught, suggested by or rendered obvious in view of a combination of the Breckinridge and Riedl patents. Consequently, Applicants request that this §103(a) rejection of their claim 18 be withdrawn and that claim 18 be allowed.

Claims 19 And 21 Are Allowable In View Of A Combination Of The Breckinridge, Riedl And Armstrong Patents

Claims 19 and 21 have been rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of U.S. Patent No. 4,401,407 of Breckenridge and U.S. Patent No. 3,204,789 of Riedl, as applied in connection with claim 18, and further in combination with U.S. Patent No. 3,952,890 of Armstrong.

The Armstrong patent describes a hydraulically operated shovel having a bucket mounted at one end of a bucket arm. The other end of the bucket arm is pivotally mounted on a main arm that is shorter than the bucket arm. The main arm is pivotally mounted on a chassis member. Three hydraulic rams are provided for moving the bucket.

As described above, in order to obtain Applicants' invention of claim 18, the skilled artisan who combined the teachings of the Breckinridge and Riedl patents would have to make four further modifications that are not described or suggested by the Breckinridge and Riedl patents. These modifications are also not suggested by the Armstrong patent. Thus, Applicants respectfully assert that this combination cannot support a rejection of their claims 19 and 21 in the manner described in the Office Action.

Applicants submit therefore, that their claims 19 and 21 are not taught, suggested by or rendered obvious in view of a combination of the Breckinridge, Riedl and Armstrong patents.

Consequently, Applicants request that this §103(a) rejection of their claims 19 and 21 be withdrawn and that claims 19 and 21 be allowed.

Claims 22-24 Are Allowable In View Of A Combination Of The Breckinridge, Riedl, Armstrong And Pickrell Patents

Claims 22-24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of U.S. Patent No. 4,401,407 of Breckenridge, U.S. Patent No. 3,204,789 of Riedl and U.S. Patent No. 3,952,890 of Armstrong, as applied in connection with claim 19, and further in combination with U.S. Patent No. 5,026,104 of Pickrell.

The Pickrell patent discloses a container handling mechanism 26 which includes linear reciprocating boom 27 and grip actuating assembly 32. The grip actuating assembly includes first and second shafts 33 and 34 which are parallel and rotatably journaled within beam 29. Segment gear 35 and mounting bracket 37 (which carries a gripping arm) are carried by shaft 33 for rotation therewith. Similarly, segment gear 38 and mounting bracket 39 (which also carries a gripping arm) are carried by shaft 34. Lever 40 is drivingly engaged, at one end, to shaft 33. Operating rod 42 of hydraulic cylinder assembly 43 is pivotally connected to the other end of lever 40. The grip actuating assembly is movable between retracted and extended positions by actuation of cylinder assembly 43. The grip actuating assembly may also be tilted about an axis which is parallel to the long axis of the vehicle by actuation of hydraulic tilt cylinder 30.

As described above, in order to obtain Applicants' invention of claim 19, the skilled artisan who combined the teachings of the Breckinridge, Riedl and Armstrong patents would have to make four additional modifications that are not described or suggested by the Breckinridge, Riedl and Armstrong patents. These modifications are also not suggested by the Pickrell patent. Thus, Applicants respectfully assert that this combination cannot support a rejection of their claims 22-

24 in the manner described in the Office Action.

The Office Action states that it would have been obvious at the time the invention was made to combine the teachings of Breckenridge, Riedl, Armstrong and Pickrell in order to obtain Applicants' invention, as described in claims 22-24. A portion of the basis for this assertion is the statement that Pickrell teaches a side support arm 29 having a first and second end, the first end of which is attached to a lift arm. Presumably, this refers to bucket arm 5 of the Armstrong device. However, there is nothing in either the Armstrong or Pickrell patents that would suggest that the Pickrell side support arm should be attached to the bucket arm of Armstrong. Furthermore, there is apparently no structure analogous to Applicants' claimed lift arm in the Pickrell reference.

Applicants submit therefore, that their claims 22-24 are not taught, suggested by or rendered obvious in view of a combination of the Breckinridge, Riedl, Armstrong and Pickrell patents. Consequently, Applicants request that this §103(a) rejection of their claims 22-24 be withdrawn and that claims 22-24 be allowed.

Claims 18 And 20 Are Allowable In View Of A Combination Of The Moore And Riedl Patents

Claims 18 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of U.S. Patent No. 5,861,580 of Moore et al. and U.S. Patent No. 3,204,789 of Riedl.

The Moore patent describes a front-loader type collection vehicle which includes a collection bin 28 mounted on the vehicle frame and a lifting mechanism 16 which includes a pair of hydraulically operated actuators 18 on opposite sides of the truck for raising and lowering boom 20. The boom is

pivotally connected to the side of the truck by pivot pins 22, and a pair of front-extending arms 12 are pivotally connected to the boom by pins 24 and moved by hydraulically operated actuators 26. The Moore patent does not describe a mechanism for removing refuse from collection bin 28.

The Office Action states that it would have been obvious at the time the invention was made to provide the vehicle taught by Moore et al. with a rear collection compartment as taught by Riedl et al. However, both the the Moore patent and the Riedl patent disclose a collection vehicle which has a single collection bin or compartment. Furthermore, the Riedl patent does not teach a rear collection compartment, but rather a "cover extension" which serves to enclose the single collection compartment of the Riedl vehicle and as a conveyor for introducing refuse material into the collection compartment. Applicants believe that a person having ordinary skill in the art at the time their invention was made would combine the teachings of these two references, if properly motivated to do so, to produce a modified Moore vehicle having: (a) a single collection compartment including the Riedl packer blade mounted at the front of the collection compartment and adapted to push refuse material towards the back of the vehicle out of the collection compartment, and (b) the Riedl "cover extension" mounted on the rear end of the collection compartment. However, Applicants' claims 18 and 20 require "a collection bin mounted on the frame" of the vehicle, "a collection compartment that is pivotally mounted on the rear of the vehicle" and a "storage compartment that is mounted on the frame between the collection bin and the collection compartment". In other words, Applicants' claims 18 and 20 require two separate collection receptacles with a storage compartment therebetween. Furthermore, Applicants' claims 18 and 20 require a packer blade that is mounted within the collection compartment or receptacle that is pivotally mounted on the rear of the vehicle, and

means for moving this packer blade within the collection compartment so as to move refuse from the collection compartment into the storage compartment. In order to obtain Applicants' invention of claims 18 and 20, the skilled artisan who combined the teachings of the Moore and Riedl patents would have to make four additional modifications: (1) he would have to change the Riedl "cover extension" into a collection compartment; (2) he would have to add a storage compartment between the cover extension/collection compartment and the Moore collection bin; (3) he would have to take the Reidl packer blade out of the collection bin and mount it in the cover extension/collection compartment; and (4) he would have to reverse the direction of movement of the packer blade, which in the Riedl patent is adapted to push refuse towards the rear of the vehicle, to allow it to push refuse from the rear-mounted collection compartment into the storage compartment. There is nothing in either the Moore or the Riedl patents which suggests any of these further changes or which suggests any motivation for making them.

Only by using the claimed invention as an instruction manual or template to piece together the teachings of the prior art can the invention of claims 18 and 20 be considered obvious in view of a combination of the Moore and Riedl patents, and such "hindsight reconstruction" of the invention is not permitted. *See In re John R. Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992).

Applicants suggest therefore that their claims 18 and 20 are not taught, suggested by or rendered obvious in view of a combination of the Moore and Riedl patents. Consequently, Applicants request that this §103(a) rejection of their claims 18 and 20 be withdrawn and that claims 18 and 20 be allowed.

Applicants respectfully submit that all of their claims, as now presented, are patentable over the prior art references cited in the Office Action, including those made of record but not relied upon. Applicants request therefore that the rejections of their claims be withdrawn and that claims 18-23, as originally presented, and 24-30 as amended, be allowed.

Respectfully submitted,



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